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APPLICATION NO.	FILING DATE	FIRST-NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/393,431	09/10/1999	STEVE J. STATHL		2698

7590 01/16/2003
STEVE J SHATHL
4980 MEREDITH WAY #201
BOULDER, CO 80303

EXAMINER

TSE, YOUNG TOI

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/393,431		Applicant(s) STATHL, STEVE J.	
	Examiner YOUNG T. TSE		Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09 October 2002.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 30-97 is/are pending in the application.

4a) Of the above claim(s) 1-29 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 30-97 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.

15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3 and 5</u>	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 30-34 (plus additional claims 35-97) in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 1-29 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made without traverse in paper No. 9.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 43, 66-69, 74-79, 81, 87-94, and 97 are objected to because of the following informalities: in claim 43, line 2, "a predetermined" should be changed to – the predetermined – for clarity; in line 2 of claims 66-69, 76-77, 79, 81, 87-94, and 97 and

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lines 2-3 of claims 74-75, and 78, "a plurality" should be changed to – the plurality – for clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 30-97 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The configuration of claims 30-97 does not correspond to the disclosure of the drawings. For example, independent claim 31 recites a multicarrier-signal generator including: a pulse generator capable of generating a plurality of periodic pulses, the pulses having a frequency spectrum comprising a plurality of carrier signals having equally spaced frequencies; a modulator coupled to the pulse generator to modulate at least one information signal onto at least one of the pulses; and a frequency selector coupled to the modulator and the pulse generator for selecting a plurality of the carrier signals with respect to at least one predetermined frequency band.

However, according to present invention, the only apparatus device is shown in Fig. 1 which includes an injection source (110), a FSFC circuit (100), an optical-to-RF signal converter (120), a transmit/receive couple array (130), an optical receiver network

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(140), and an antenna array (150). Clearly, Fig. 1 does not show a multicarrier-signal generator comprising a pulse generator, a modulator, and a frequency selector and the specification also fails to discuss the claimed subject matter as recited in claim 31. Also see claim 30 and method claims 32-33.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 30-97 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 30, Applicant is requested to clarify the difference of "a plurality of carrier signals" between line 3 and line 6. Also see claims 31-35.

In claim 31 (line 4); claim 32 (line 3); claim 33 (lines 5-6); claim 38 (line 4); claim 44 (lines 2-3); claim 52 (line 2); claim 54 (lines 3-4); claim 55 (line 2); claim 60 (lines 2-3); claim 68 (line 3); claim 70 (lines 2-3); claim 71 (lines 3-4); claim 75 (line 4); claim 84 (line 3); claim 86 (line 3); claim 87 (lines 2-3); claim 91 (line 4); and claim 92 (line 3); the phrases "the pulse period", "the unmodulated pulses", "the information-modulated pulses", "the plurality of pulses", "each of the carriers", "the carriers", "the coded information signals", "the plurality of carriers", and "the pulses" all lack antecedent basis.

Double Patenting

9. Claim 35 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 34. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

References Anderson, Galpin, Haeff et al., Udren, and Monroe are made of record as describing a related pulse circuit including a pulse generator for generating periodic pulses to a modulator circuit and a selector circuit for selecting the frequency of the modulated pulses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is (703) 305-4736.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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or faxed to:

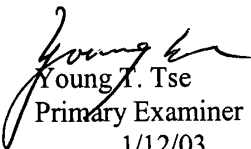
(703) 872-9314 (for Technology Center 2600 only)

Or:

**(703) 872-9315 (for amendments after final rejection only, please
mark "EXPEDITED PROCEDURE")**

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.


Young T. Tse
Primary Examiner
1/12/03